### ONLINE SHOPPERS' AFFINITY TOWARDS PERSONALIZED PRODUCT RECOMENDATION

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### **ABSTRACT:**

Personalized marketing is the future of modern marketing. As most customers today have a short attention span to make product choices, marketers can assist/help them discover relevant products and inspire them throughout their path of purchase journey by providing product recommendations. Timely recommendation, if personalized, always pay way to expose the right type of product to right customers at right time and makes it easier for them to find what they need. A personalized product recommendation is a tool which the business/marketers use to provide suggestion to the customers who searches for a product either in an online stores or even in a brick-andmortar stores and facilitate quality purchase decision which matches customer's needs and requirements. Such personalized recommendations will keep the customers focus on only those products which they want to buy. This study focusses on such issues and tries to provide insights into these related areas.

Keywords: Online Shopping, Personalised Recommendations, Ecommerce.

### INTRODUCTION

In the era of digital commerce, to accelerate sales and create a competitive advantage, personalized product recommendation strategies to online shoppers have become an inevitable feature. Today, with powerful computing technologies and more and more data available which is easily accessible creating online personalized recommendations for a given product/service through recommendation engines has now become the modern marketing mantra. Artificial Intelligence (AI) and Machine Learning (ML) has given rise to recommendation engines in e-commerce. An online personalized product recommendation is a relevant suggestion generated by a recommendation engine, a piece of technology that displays recommended products to online shoppers. It uses machine learning and shows increasingly relevant products to e-shoppers based on their interests and previous browsing behaviour. These include profile, clickstream, pages viewed, prior site visits, conversions and purchase data even within just a single or a few visits of online shoppers. Such online personalized product recommendations also include what other items might complement with something they have been looking for, what items did other e-shoppers' buy along with such items, the online customer's shopping cart details or any details if have they abandoned it. Such an approach, is widely used to inform and persuade shoppers to consider alternative products as they evaluate competing offerings, thereby converting browsers into buyers, increasing loyalty and improving consumer retention.

As online shoppers' journey has become more complicated these days to remain more effective, E-commerce firms can use this powerful tool for cross-selling and upselling opportunities resulting in revenue generation. If personalized product recommendation is done right with customers using online platform it can engage shoppers, create a memorable shopping experience and enhance satisfaction and create a long-lasting relationship with them. This study focusses on such issues and tries to provide insights into these related areas. A discussion about review of literature follows.

### 1. REVIEW OF LITERATURE:

Behera, R. K., Bala, P. K., & Jain, R. (2020) study focussed on identifying the best fitting recommendation engine algorithm for recommendation agents while Lewis and Loker (2017) study focussed on personalized product recommendation in apparel stores. In the study conducted by Zhang T., Agarwal, R., & Lucas Jr, H. C. (2011) the relationship between personalized product recommendations, loyalty and repurchase intentions has been examined. Schafer et al. (2001) study revealed the outcomes of personalized product recommendation such as converting browsers into buyers, increasing cross-selling and building loyalty to enhance sales. Haubl and Murray

(2003), Hennig-Thurau et al. (2012) studies focussed on how the recommender systems help the online buyers to make better choices while browsing for a product and by predicting with accuracy as to what is most relevant for prospective buyers to create an impact on their buying preference and decision-making process.

### 2. RESEARCH GAP:

To identify the research gap, a review of literature has been conducted on this related area. It is interesting to note that various studies have demonstrated the role of digital/online personalized product recommendation in boosting conversions if used, effectively. However, no previous research study has specifically investigated and compared the relative influence of e-tailers personalized product recommendation on online shoppers' product choices and as a result, leading to purchase decision made by them. Many other factors such as e-shopper's perception towards online personalized product recommendation, frequency of purchase, the type of product purchased and period of usage of personalized product recommendation given by e-shoppers to make purchase decision has been identified for this study. Further, experience, overall satisfaction and problems faced by e-shoppers of personalized product recommendation and their future intentions has also been examined according to this study. In addition, the study also provides efficient strategies to enhance online shoppers' engagement and experience towards personalized product recommendation provided by such recommender system.

### 4. OBJECTIVES OF THE STUDY:

- i. To understand the online shoppers' perceptions about e-tailers personalized product recommendations;
- ii. To investigate the influence of e-tailers personalized product recommendations on product choices and purchase decision of online shoppers';
- iii. To examine online shoppers' experience, overall satisfaction and future intentions towards e-tailers personalised product recommendations; and
- iv. To identify online shoppers' problems with e-tailers personalized product recommendations and suggest measures to overcome.

### 5. RESEARCH DESIGN:

This study has been conducted using both primary and secondary data. The primary data has been collected from a sample of 105 respondents to know about the online shoppers' affinity towards e-tailers personalised product recommendation while making product choices and purchase decision. A well-structured questionnaire has been administered to the respondents to gather data. A convenience sampling technique has been applied. The respondents who are familiar with e-tailers personalized product recommendation belonging to different age group, gender, educational qualification and strata of the society from Chennai city have been considered for the study. Secondary data has been collected from books, journals, periodicals and website. The simple percentage method has been applied for this paper.

### 6. DATA ANALYSIS AND INTERPRETATION:

**Table** − **1:** Demographic profile of respondents

Gender	Frequency	Percentage
Male	61	58.00
Female	44	42.00
Total	105	100.00
Age	Frequency	Percentage
Under 25 Yrs	29	28.0
25-35 Yrs	36	34.3
35-45 Yrs	22	21.0
Above 45 Yrs	28	26.7
Total	105	100.00

Educational qualification	Frequency	Percentage
SSLC / HSC	12	11.43
Graduate	33	31.43
Post Graduate	26	24.77
Professional	23	21.90
Others (Diploma Holder)	11	10.47
Total	105	100.00
Occupation	Frequency	Percentage
Employed	55	52.39
Business	19	18.09
Student	26	24.77
Home Maker	3	2.85
Retired	2	1.90
Total	105	100.00
Monthly / Household Income	Frequency	Percentage
Under Rs.25,000	23	21.90
Rs.25,000 – Rs.50,000	44	41.90
Above Rs.50,000	38	36.20
Total	105	100.00
Marital Status	Frequency	Percentage
Married	55	52.38
Unmarried	50	47.62
Total	105	100.00

Source: Primary Data

**Interpretation:** Table - 1 shows that 58 % of the respondents are males; 34.3% are between 25 years to 35 years; 31.43% are graduates; 52.39% are employed; while 41.9% have a monthly/ household income of Rs.25,000 to Rs.50,000 and 52.38% are married according to this study.

**Table – 2:** Online shoppers' perception towards e-tailers personalized product recommendation, period of usage, type of products bought, frequency of usage and influence on purchase decision of respondents

Online- shoppers' perception towards e-tailers personalized product recommendations	Frequency	Percentage
Very reliable and trust worthy	23	21.90
Improves product choices	28	26.66
Builds brand loyalty	13	12.38
Meets my needs/expectations	18	17.15
Targets individual (One-To-One)	10	9.53
Helps in repeat purchase	8	7.62
Provides accurate/timely information	5	4.76
Total	105	100.00
Period of usage of e -tailers personalized product	Frequency	Percentage
recommendations by online shoppers'		
Less than 1 year	17	16.19
1-3 yrs	30	28.58
3-5 yrs	38	36.19
Above 5 yrs	20	19.04

Total	105	100.00
Type of products bought by online shoppers' through e-tailers	Frequency	Percentage
personalized recommendations		
Durable products	52	49.52
Non-durable products	31	29.52
Both	22	20.96
Total	105	100.00
Online shoppers' frequency of usage of e-tailers personalized	Frequency	Percentage
product recommendations		
Regularly	68	64.77
Occasionally	25	23.80
No idea	12	11.43
Total	105	100.00
Influence on online shoppers' product purchase decision	Frequency	Percentage
through e-tailers personalized recommendations		
To greater extent	39	37.14
To some extent	27	25.72
No idea	21	20.00
Not at all/ Never	18	17.14
Total	105	100.00

Source: Primary Data

**Interpretation :** Table - 2 shows that 26.66% of the respondents perceive that e-tailers personalized product recommendations improves their product choices; 36.19% have been using e-tailers personalized product recommendations for a period of 3-5years; while 49.52% have bought durable products using e-tailers personalized recommendations; 64.77% regularly follow e-tailers personalized product recommendations; and 37.14% of respondents to a greater extent are been influenced to make a purchase decision through e-tailers personalized product recommendations according to this study.

**Table – 3:** Online shoppers' experience, problems faced, overall satisfaction and future intentions of respondents towards e-tailers personalized product recommendations

Online Shopper's experience through e-tailers personalized recommendations	Frequency	Percentage
Convincing explanation for product recommendation	33	31.43
Clarity in product recommendation to me	21	20.00
More transparent with recommendation	20	19.05
Recommendation is tailored-made/customized to my interest	25	23.80
Best price is highlighted	6	5.72
Total	105	100.00
Problems faced by online shoppers' through e-tailers personalized recommendations	Frequency	Percentage
Fear that e-tailer has more information/track of my information	21	20.00
E-tailer is able to access information about me	23	21.90
Exposure of personal information bothers me	25	23.80
Privacy/security concerns	36	34.28
Total	105	100.00

Overall satisfaction of online shoppers through e-tailers	Frequency	Percentage
personalized recommendations		
Highly satisfied	20	19.05
Satisfied	46	43.80
No idea	12	11.43
Dissatisfied	16	15.24
Highly dissatisfied	11	10.48
Total	105	100.00
Future intentions of online shoppers' about e-tailers	Frequency	Percentage
personalized recommendations		
Make repeat purchase/buy more	30	28.57
Buy at a premium price	14	13.34
Recommend to friends/co-workers	24	22.86
Spread positive word-of-mouth	25	23.80
Remain loyal	12	11.43
Total	105	100.00

Source: Primary Data

**Interpretation:** Table - 3 shows that 31.43% of the respondents experience a convincing explanation for product recommendation given by e-tailers; while 34.28% of respondents face the problem of privacy/security issues through e-tailers personalized recommendations as they fear that their information can be used in different ways; 43.8% are satisfied by e-tailers personalized product recommendation; and 28.57% of respondents have future intentions to make repeat purchase/buy more through personalized product recommendation according to this study.

# 7. BUILDING EFFECTIVE USER-FRIENDLY PERSONALIZED PRODUCT RECOMMENDATION STRATEGIES:

The following strategies can be used by e-tailers to enhance online shoppers' experience, their satisfaction and take quality decision to make a purchase.

- ❖ E-tailers/ marketers should recommend the most popular and trending products which are most purchased or browsed by users/consumers and then narrow down by filters like specific category, location and so on. By offering personalized shopping experience, customer relationship with the brands can deepen by driving customer engagement with the brands and enhance sales.
- Make the online users be aware about new product arrivals as it is always perceived to be more desirable. Develop interest among the online users/shoppers by recommending new arrivals due to multiple choices online shoppers have when purchasing. Such predictive recommendations can attract and retain today's easily swayed shoppers.
- ❖ Deliver a new experience each time for users/shoppers by providing accurate and timely information. By giving an early access to the users about their products, not only generates sales but also help the e-tailers develop a deeper relationship with their customers by giving them a sense of being understood and properly served. This feature encourages repeat purchases.
- Implementing personalized product recommendations by e-tailers can improve cart abandonment of online shoppers by making them feel more confident in their purchase decision by highlighting the best price for the product chosen by them. As long as e-consumers derive certain value from such a recommendations, e-tailers can maximize their long-term revenue, withstand competition and create a competitive edge over others.
- ❖ Product recommendation has to be targeted to the market, specifically through behavior trait segment for greater impact and accuracy. Always keep the online shoppers busy. Make the e-shoppers begin on one

product, click through to another, get distracted by another. This pattern helps shoppers to stay on the site longer by capturing their attention and engaging them with recommendations for products they hadn't considered or expected to find.

### 8. LIMITATIONS OF THE STUDY:

- This study deals only with personalized product recommendations for online shoppers generated by the etailers.
- The study has been limited to Chennai city with a sample size of 105 online respondents only.
- The study cannot be generalized to long time as perceptions of online shoppers can change rapidly.
- The results of the study purely depends upon the information furnished by the online shoppers through questionnaire which is subject to personal bias.

### 9. SCOPE FOR FUTURE STUDY:

- > It is recommended that this study can be replicated in other cities and as well as other states of our country to determine any variations in the findings of the study.
- > A comparative study among shoppers involving both online and offline personalized product recommendation based on different segments can be conducted.
- > Further, future studies can replicate this study by considering other forms of recommendation systems such as e-mails, social media, videos, text messages and online review systems.
- > Various other factors such as business performance, advertisement response rates that can impact both online and offline shoppers' affinity towards personalized product recommendations can also be studied.
- > Lastly, a comparative research study can involve e-tailers personalized recommendation with online shoppers in all product categories as well as service categories.

### 10. CONCLUSION

Product recommendations are a powerful marketing tool to increase conversions, boost revenue, and stimulate shopper's engagement. Timely product recommendations can build a more meaningful relationship with them and improve customer retention and brand affinity. The study therefore explored the power of e-tailers personalized product recommendations to online shoppers. A sample of 105 online shoppers who are familiar with e-tailers personalized product recommendation from Chennai city have been considered for the study. The findings revealed that e-shoppers perceive that personalized recommendations improves their product choices; and their purchase decision to a great extent has been influenced through such personalized recommendations offered by etailers. Further, online shoppers experience that e-tailer provide a convincing explanation while make product recommendation; they are satisfied with e-tailers personalized recommendations and have intentions to use such recommendations in future also to make repeat purchases/buy more according to this study. However, it is interesting to know that online shoppers have privacy and security concern problems as they feel that their information can be misused by e-tailers. Based on the findings, this study recommends that e-tailers/ marketers should therefore pay particular attention to build effective user-friendly strategies to provide valuable and timely personalized information to online shoppers to create a good rapport between them and online shoppers successfully.

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